

10-17-01  
12.3.2 v.7

ITEM: 4JC05 -

PICK REQ: 0175008300

MATERIAL SAFETY DATA SHEET (MSDS)

MSDS: A3656

This MSDS should be attached or kept with the respective product with which it is associated.

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MATERIAL SAFETY DATA SHEET - A3656

Associated Grainger Item: 4JC05 -

ENERGIZER

PRODUCT SAFETY DATA SHEET

ALKALINE BATTERIES

10/17/01

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PRODUCT SAFETY DATA SHEET

PRODUCT NAME: EVEREADY BATTERY

TRADE NAMES: ENERGIZER, ENERGIZER E2, INDUSTRIAL ZMA, HERCULES

CHEMICAL SYSTEM: ALKALINE MANGANESE DIOXIDE-ZINC

TYPE NO.:

APPROXIMATE WEIGHT:

DESIGNED FOR RECHARGE: NO

VOLTS:

#### SECTION I - MANUFACTURER INFORMATION

EVEREADY BATTERY COMPANY, INC.  
25225 DETROIT ROAD  
WESTLAKE, OH 44145

TELEPHONE NUMBERS FOR INFORMATION:  
(440) 835-7368  
(800) 383-7323 (USA)

DATE PREPARED: OCTOBER 17, 2001

#### SECTION II - HAZARDOUS INGREDIENTS

IMPORTANT NOTE:  
THIS BATTERY SHOULD NOT BE OPENED OR BURNED. EXPOSURE TO THE INGREDIENTS CONTAINED WITHIN OR THEIR COMBUSTION PRODUCTS COULD BE HARMFUL.

MATERIAL OR INGREDIENT	PEL (CSHA)	TLV (ACGIH)	4/WT.
GRAPHITE (CAS# 7782-42-5)	15 MG/M3 TWA (TOTAL DUST) 5 MG/M3 TWA (RESPIRABLE FRACTION)	2 MG/M3 TWA (RESPIRABLE FRACTION)	2-6
MANGANESE DIOXIDE (CAS# 1313-13-9)	5 MG/M3 CEILING (AS Mn)	0.2 MG/M3 TWA (AS Mn)	30-45
POTASSIUM HYDROXIDE (CAS# 1310-58-3)	NONE ESTABLISHED	2 MG/M3 CEILING	4-8
ZINC (CAS# 7440-66-6)	15 MG/M3 TWA PNOC* (TOTAL DUST) 5 MG/M3 TWA PNOC* (RESPIRABLE FRACTION)	10 MG/M3 TWA PNOC** (INHALEABLE PARTICULATE) 3 MG/M3 TWA PNOC** (RESPIRABLE PARTICULATE)	12-25

\* PNOC: PARTICULATES NOT OTHERWISE REGULATED  
\*\* PNOC: PARTICULATES NOT OTHERWISE CLASSIFIED

#### SECTION III - FIRE AND EXPLOSION HAZARD DATA

IN CASE OF FIRE, IT IS PERMISSIBLE TO USE ANY CLASS OF EXTINGUISHING MEDIUM ON THESE BATTERIES OR THEIR PACKING MATERIAL. COOL EXTERIOR OF BATTERIES IF EXPOSED TO FIRE TO PREVENT RUPTURE.  
FIRE FIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS.

#### SECTION IV - HEALTH HAZARD DATA

UNDER NORMAL CONDITIONS OF USE, THE BATTERY IS HERMETICALLY SEALED.

INGESTION: SWALLOWING A BATTERY CAN BE HARMFUL.

CONTENTS OF AN OPEN BATTERY CAN CAUSE SERIOUS CHEMICAL BURNS OF MOUTH, ESOPHAGUS, AND GASTROINTESTINAL TRACT.

IF BATTERY OR OPEN BATTERY IS INGESTED, DO NOT INDUCE VOMITING OR GIVE FOOD OR DRINK. SEEK MEDICAL ATTENTION IMMEDIATELY. CALL NATIONAL BATTERY INGESTION HOTLINE FOR ADVICE AND FOLLOW-UP (202-625-3333 COLLECT) FOR ADVICE AND FOLLOW-UP, DAY OR NIGHT.

INHALATION:  
CONTENTS OF AN OPEN BATTERY CAN CAUSE RESPIRATORY IRRITATION. PROVIDE FRESH AIR AND SEEK MEDICAL ATTENTION.

SKIN CONTACT:  
CONTENTS OF AN OPEN BATTERY CAN CAUSE SKIN IRRITATION AND/OR CHEMICAL BURNS. REMOVE CONTAMINATED CLOTHING AND WASH SKIN WITH SOAP AND WATER. IF

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A CHEMICAL BURN OCCURS OR IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

EYE CONTACT:  
CONTENTS OF AN OPEN BATTERY CAN CAUSE SEVERE IRRITATION AND CHEMICAL BURNS. IMMEDIATELY FLUSH EYES THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. LIFTING UPPER AND LOWER LIDS, UNTIL NO EVIDENCE OF THE CHEMICAL REMAINS. SEEK MEDICAL ATTENTION.

#### SECTION V - PRECAUTIONS FOR SAFE HANDLING AND USE

STORAGE:  
STORE IN A COOL, WELL VENTILATED AREA. ELEVATED TEMPERATURES CAN RESULT IN SHORTENED BATTERY LIFE.

MECHANICAL CONTAINMENT:  
IF POTTING OR SEALING THE BATTERY IN AN AIRTIGHT OR WATERTIGHT CONTAINER IS REQUIRED, CONSULT YOUR EVEREADY BATTERY COMPANY REPRESENTATIVE FOR PRECAUTIONARY SUGGESTIONS. BATTERIES NORMALLY EVOLVE HYDROGEN WHICH, WHEN COMBINED WITH OXYGEN FROM THE AIR, CAN PRODUCE A COMBUSTIBLE OR EXPLOSIVE MIXTURE UNLESS VENTED. IF SUCH A MIXTURE IS PRESENT, SHORT CIRCUITS, HIGH TEMPERATURE, OR STATIC SPARKS CAN CAUSE AN IGNITION.

DO NOT OBSTRUCT SAFETY RELEASE VENTS ON BATTERIES. ENCAPSULATION (POTTING) OF BATTERIES WILL NOT ALLOW CELL VENTING AND CAN CAUSE HIGH PRESSURE RUPTURE.

HANDLING:  
ACCIDENTAL SHORT CIRCUIT FOR A FEW SECONDS WILL NOT SERIOUSLY AFFECT THE BATTERY. PROLONGED SHORT CIRCUIT WILL CAUSE THE BATTERY TO LOSE ENERGY, AND CAN CAUSE THE SAFETY RELEASE VENT TO OPEN. SOURCES OF SHORT CIRCUITS INCLUDE JUMBLED BATTERIES IN BULK CONTAINERS, METAL JEWELRY, METAL COVERED TABLES OR METAL BELTS USED FOR ASSEMBLY OF BATTERIES INTO DEVICES.

IF SOLDERING OR WELDING TO THE BATTERY IS REQUIRED, CONSULT YOUR EVEREADY BATTERY COMPANY REPRESENTATIVE FOR PROPER PRECAUTIONS TO PREVENT SEAL DAMAGE OR SHORT CIRCUIT.

CHARGING:  
THIS BATTERY IS MANUFACTURED IN A CHARGED STATE. IT IS NOT DESIGNED FOR RECHARGING. RECHARGING CAN CAUSE BATTERY LEAKAGE OR, IN SOME CASES, HIGH PRESSURE RUPTURE. INADVERTENT CHARGING CAN OCCUR IF A BATTERY IS INSTALLED BACKWARDS.

LABELING:  
IF THE EVEREADY LABEL OR PACKAGE WARNINGS ARE NOT VISIBLE, IT IS IMPORTANT TO PROVIDE A PACKAGE AND/OR DEVICE LABEL STATING:

WARNING:  
DO NOT INSTALL BACKWARDS, CHARGE, PUT IN FIRE, OR MIX WITH OTHER BATTERY TYPES. MAY EXPLODE OR LEAK CAUSING INJURY. REPLACE ALL BATTERIES AT THE SAME TIME.

WHERE ACCIDENTAL INGESTION OF SMALL BATTERIES IS POSSIBLE, THE LABEL SHOULD INCLUDE:

KEEP AWAY FROM SMALL CHILDREN. IF SWALLOWED, PROMPTLY SEE DOCTOR; HAVE DOCTOR PHONE (202) 625-3333 COLLECT.

DISPOSAL:  
DISPOSE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. APPROPRIATE DISPOSAL TECHNOLOGIES INCLUDE INCINERATION AND LANDFILLING.

#### SECTION VI - SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS: NOT NECESSARY UNDER NORMAL CONDITIONS.

RESPIRATORY PROTECTION: NOT NECESSARY UNDER NORMAL CONDITIONS.

EYE PROTECTION:  
NOT NECESSARY UNDER NORMAL CONDITIONS. WEAR SAFETY GLASSES WITH SIDE SHIELDS IF HANDLING AN OPEN OR LEAKING BATTERY.

GLOVES:  
NOT NECESSARY UNDER NORMAL CONDITIONS. USE NEOPRENE OR NATURAL RUBBER GLOVES IF HANDLING AN OPEN OR LEAKING BATTERY.

#### SECTION VII - REGULATORY INFORMATION

THE TRANSPORTATION OF DRY CELL BATTERIES MANUFACTURED OR SOLD BY EVEREADY BATTERY COMPANY IS NOT REGULATED BY THE U.S. DEPARTMENT OF TRANSPORTATION OR THE MAJOR INTERNATIONAL REGULATORY BODIES.

SARA/TITLE III - AS AN ARTICLE, THIS BATTERY AND ITS CONTENTS ARE NOT SUBJECT TO THE REQUIREMENTS OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT.

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